Manitoba Agriculture

formation Update

Guidelines for Estimating
Alfalfa Grass Hay
Cost of Production

Date: April, 2001

This guide is designed to provide planning information and a format for calculating the costs of production in a forage enteprise. The production costs included in this budget were not obtained from a survey of producers, nor do they necessarily represent the average cost of production for alfalfa grass hay in Manitoba.

The assumptions on which the costs were calculated are clearly defined in the supporting pages. They were developed by using a combination of recommended practices and methods followed by many producers.

When interpreting the costs contained in this budget for an individual situation, adjustments may be necessary. Each assumption must be examined and adjustments made where necessary.

The budget can be useful for comparative purposes. Comparison of costs can be made with other similar farms; comparing farm costs over time; or comparing actual results with projections made earlier.

Alfalfa Grass Hay Cost of Production Summary - 2001

	$/Acre	$/ton	Your Cost
A. Operating Costs			
1.01 Seed	$5.50	$2.20	
1.02 Fertilizer	$27.53	$11.01	
1.03 Herbicide	$2.50	$1.00	
1.04 Fuel & Repairs	$8.67	$3.47	
1.05 Crop Insurance	$5.21	$2.08	
1.06 Land Taxes	$5.00	$2.00	
1.07 Miscellaneous	$2.00	$0.80	
Sub-total Operating Cost	$56.41	$22.56	
1.08 Interest on Operating	$2.40	$0.96	
Total Operating Costs	**$58.81**	**$23.52**	
B. Fixed Costs			
2.0 Investment			
2.01 Land	$15.00	$6.00	
2.02 Machinery	$5.96	$2.38	
2.03 Storage	$0.63	$0.25	
3.0 Depreciation			
3.01 Machinery	$19.50	$7.80	
3.02 Storage	$5.00	$2.00	
Total Fixed Costs	**$46.09**	**$18.43**	
Total Operating and Fixed	**$104.90**	**$41.95**	
C. Labour	**$10.00**	**$4.00**	
Total Cost of Production	**$114.90**	**$45.95**	

Assumptions

1. Assumed a 'total' of 300 acres' of alfalfa grass hay at a market value of $300 per acre.

2. Assumed 6 years of production with an average yield of 2.5 tons per acre.

3. Machinery and equipment for the grass hay enterprise included a tractor (alfalfa portion), trailer, baler and mower conditioner which were valued at $65000 in total.

4. In the first year the cover crop is assumed to be taken as green feed.

Alfalfa Grass Hay Cost of Production Worksheet

				Your Cost
A. Operating Costs				
1.01 Seed				
		10.0	alfalfa grass mix lbs/acre	
	x	$2.50	$/lb	
	+	1.5	bu (cover crop oats)	
	x	$3.00	$/bu (cover crop)	
	+	$3.50	$/acre custom seeding	
	÷	6	years of production	
	=	**$5.50**	**/acre**	
1.02 Fertilizer				
		40.0	lbs nitrogen seeding year	
	+	6	years of production	
	+	0.0	lbs nitrogen cropping years	
	x	$0.34	cost/lb	
	=	$2.27	/acre	
		65	lbs phosphate seeding year	
	+	6	years of production	
	+	50	lbs phosphate cropping years	
	x	$0.28	cost/lb	
	=	$17.03	/acre	

		30	lbs potash seeding year	
	+	6	years of production	
	+	30	lbs potash cropping years	
	x	$0.14	cost/lb	
	=	$4.73	/acre	
		15	lbs sulfur seeding year	
	+	6	years of production	
	+	15	lbs sulfur cropping years	
	x	$0.20	cost/lb	
	=	$3.50	/acre	
Total	=	**$27.53**	**/acre**	

1.03 Herbicide

Seeding		$15.00	Weed control	
	+	6	years of production	
	=	**$2.50**	**/acre**	

1.04 Fuel & Repairs

Seeding		$2.00	fuel/acre	
	+	$0.50	repairs/acre	
	÷	6	years of production	
	=	$0.42	/acre	
Cropping		$5.75	fuel/acre	
	+	$2.50	repairs/acre	
	=	$8.25	/acre	
Total		**$8.67**	**/acre**	

1.05 Crop Insurance

Seeding		$1.87	premium/acre	
	+	6	years of production	
	=	$0.31	/acre	
Cropping	=	$4.90	premium/acre	
Total	=	**$5.21**	**/acre**	

1.06 Land Taxes

=	**$5.00**	**/acre**	_____

1.07 Miscellaneous

	$2.00	**/acre**	_____

1.08 Interest on operating costs

	$56.41	subtotal operating	_____
+	2	average	_____
x	8.5	interest rate	_____
=	**$2.40**	**/acre**	_____

Capital Costs

Land		
300 acres @ $300/acre	**$90,000**	_____
Machinery		
Tractors	$30,000	_____
Trailers	$5,000	_____
Baler	$15,000	_____
Mower Conditioner	$15,000	_____
Total Machinery	**$65,000**	_____
Storage	**$7,500**	_____
Total Investment	**$155,000**	_____

B. Fixed Costs

2. Investment

2.01 Land

	$300.00	cost/acre	_____
x	5.0	investment rate	_____
=	**$15.00**	**/acre**	_____

2.02 Machinery

	$65,000	machinery investment	_____
+	$6,500	salvage value	_____
+	2	average	_____
+	300	acres	_____
x	5.0	investment rate	_____
=	**$5.96**	**/acre**	_____

2.03 Storage

	$7,500	storage investment	_____
+	$0.00	salvage value	_____
+	2	average	_____
+	300	acres	_____
x	5.00	investment rate	_____
=	**$0.63**	**/acre**	_____

Depreciation

3.01 Machinery

	$65,000	machinery investment	_____
-	$6,500	salvage value	_____
÷	10	years useful life	_____
÷	300	acres	_____
=	**$19.50**	**/acre**	_____

3.02 Storage	$7,500	storage investment	_____
-	$0.00	salvage value	_____
÷	5	years useful life	_____
÷	300	acres	_____
=	**$5.00**	**/acre**	_____

C. Labour Cost

	1.0	hours/acre	_____
x	$10.00	rate/hour	_____
=	**$10.00**	**/acre**	_____

For more information contact your local Manitoba Agriculture and Food office.

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